

REMARKS

With this Amendment, applicants have proposed a new Fig. 6 and related language for the specification relating to an embodiment wherein the alignment surface and counter-alignment surface are disposed in slanted planes other than perpendicular to the rotational axis of the shaft. Support for the new figure and related description can be found in the specification starting at page 5, last paragraph, and continuing through the second full paragraph on page 6. Applicants respectfully submit that no new matter is being added to the specification by way of the new drawing and related description.

Claims 29 through 43 and 49 through 54 stand rejected under § 102(b) as anticipated by Paweletz '715.

Claims 44 through 48, 55, and 56 stand objected to for being dependent upon rejected base claim, but otherwise allowable.

Claim 44 is amended herein to be placed in independent form and is thus allowable. Claims 45 through 47 depend from claim 44 and are thus also allowable.

Claim 48 is amended herein to be placed in independent form and is thus allowable.

Claim 55 is amended herein to be placed in independent form and is thus allowable. Claim 56 depends from claim 55 and is thus also allowable.

Applicants respectfully submit that the remaining claims of record as amended and presented herein patentably distinguish over Paweletz '715. The present invention relates to rotors for open end spinning machines of the conventional type wherein a rotor cup is mounted onto one end of a shaft. The opposite end of the shaft defines an axial bearing surface. These types of rotors are well known to those skilled in the art.

The Examiner's attention is drawn, for example, to U.S. Patent Nos. 5,966,920 (Fig. 1) or U.S. Patent No. 5,722,227 (Fig. 1). With these types of rotors, the rotor shaft is supported by a support disk usually consisting of opposing disk pairs. The rotor is usually driven by a tangential belt that runs along one side of a spinning machine to drive all of the rotors arranged on the respective side. The free axial end of the rotor shaft defines a bearing surface for an axial bearing arrangement. Such features are well understood by those skilled in the art.

Claim 29 calls for the free end of the shaft at the axial bearing end that is opposite from the rotor end to include a longitudinally extending projection and a first alignment surface defined at an annular end face of the projection in a plane that is generally transverse to a longitudinal axis of the shaft. A support cap is fitted onto the projection and includes an end that defines an axial bearing surface for the spin rotor. The support cap includes a first counter-alignment surface disposed against the alignment surface of the shaft free end portion. By engagement of the first alignment and first counter-alignment surfaces, the axial bearing surface is disposed in a defined plane generally transverse to the rotational axis of the shaft. These features are not disclosed or suggested by the fundamentally different structure of Paweletz '715.

The structure of Paweletz '715 relates to a shaftless spin rotor that is electrically drivable with a single motor. This type of rotor is fundamentally different from the structure of the present invention. Referring to the figures of Paweletz '715, the rotor cup 2 is coupled directly to an electric motor 1 by way of drivers 3 and complimentary indentations 14. The motor 1 includes drive magnets 6 and 7. Thus, the rotor does not have a shaft with a free end portion defining an axial bearing surface for the rotor.

There is no shaft with a free end portion defining a longitudinally extending projection having a first alignment surface defined at an annular end face of such projection.

Applicants respectfully submit that the reference DE 40 20 411 discussed in the specification (and submitted in an Information Disclosure Statement) is far more relevant to the present invention than the rotor of Paweletz '715. The Examiner's attention is drawn particularly to Fig. 4 of this reference. As discussed in the "Background" section of the present application, with the type of arrangement set forth in DE '411, a dead space 24 must be defined in the bore of the support cap 23 to allow for insertion of the pin or projection 25. With the arrangement called for in claim 29, the projection has a first alignment surface defined at the annular end face of the projection. This alignment surface engages with the counter-alignment surface in the support cap. In other words, a dead space is not defined between the alignment surface and counter-alignment surface.

Accordingly, applicants respectfully submit that independent claim 9 defines over the art of record, particularly Paweletz '715, and is allowable. Claims 30 through 43 depend from claim 29 and only further patentably define the invention thereof, and are thus also allowable.

Independent claim 49 calls for the support cap for attachment onto a projection extending from the end of a rotor shaft. The support cap includes an axial bearing surface at one end and a recess defined in an opposite end into which the shaft projection extends. The support cap includes a counter-alignment surface disposed contact against an annular end face alignment surface of the shaft free end portion in order to align the support cap such that the axial bearing surface is maintained at a

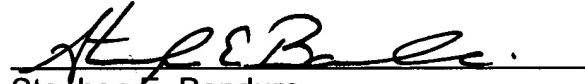
desired angle with respect to a rotational axis of the shaft. As discussed above with respect to claim 29, this support cap configuration is not disclosed or suggested in the art of record. Applicants respectfully submit that independent claim 29 is thus allowable and that claims 50 through 54 depending therefrom are also allowable.

With the present Amendment, applicants submit that the application is in condition for allowance and favorable action thereon is respectfully requested. The Examiner is encouraged to contact the undersigned at his convenience to resolve any remaining issues.

Respectfully submitted,

DORITY & MANNING, P.A.

By:


Stephen E. Bondura
Reg. No. 35,070

P.O. Box 1449
Greenville, SC 29602-1449
(864) 271-1592
FAX (864) 233-7342